ABSTRACT OF THE DISCLOSURE

A frame structure for a motorcycle includes a front fork which journals a front wheel and that is capable of being steered and supported by a head pipe. Front end portions of a pair of right and left pipe members are connected contiguously to the head pipe and extend downwardly and rearwardly from the head pipe. The pair of right and left pipe members each have a substantially prismatic cross sectional shape and are each bent at their longitudinally intermediate portions so as to be outwardly convex with respect to the sides of the motorcycle frame. An engine is disposed between lower portions of both pipe members in an engine mounting space. The present invention narrows the distance between the upper portions of the right and left pipe members and effectively increases the space between the lower portions of the pair of right and left pipe members.